EPA Environmental Technology Verification Program

QUARTERLY REPORT

Hammer Award Presented to EPA's Environmental Technology Verification (ETV) Program Team

At the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program Washington Workshop on April 14, 1998, the ETV Program Team in the Office of Research and Development received Vice President Gore's National Performance Review Hammer Award. The Hammer Award is presented to teams of federal employees who have made significant contributions in support of reinventing government principles. The Award is the Vice President's answer to yesterday's government and its $400 hammer. Appropriately, the award consists of a $6.00 hammer, a ribbon, and a note from Vice President Gore, all in an aluminum frame. More than 1,000 Hammer Awards have been presented to teams comprised of federal employees, state and local employees, and citizens who are working to build a better government. The ETV Hammer Award is proudly displayed in the EPA Headquarters ETV Program Office.

ETV is designed to accelerate the development and commercialization of improved environmental technology through third-party verification and reporting of performance. The benefits of ETV are (1) getting objective, credible performance data to buyers; (2) facilitating technology acceptance and permitting at the state/local level, and the export of American products and their acceptance abroad; (3) reducing the risk for financial investors; and (4) leveling the playing field among competitors through standardized tests and objective reporting. The program now operates 12 pilot verification organizations covering a broad range of environmental technology areas. EPA expects that ETV will verify more than 300 better, faster, cheaper technologies by the year 2005.

The ETV Program was a clear choice for the Hammer Award because of the wide variety of EPA offices and programs included as well as the substantial involvement of partner organizations, including private non-profit and research organizations, state government agencies, federal laboratories, and industry research associations. The ETV Team consists of approximately 40 EPA employees representing EPA's Office of Research and Development National Risk Management Research Laboratory (NRMRL) and the National Exposure Research Laboratory (NERL), EPA's Office of Air Quality Planning and Standards, EPA's Office of Water, EPA's Office of Solid Waste, EPA's Office of Pollution Prevention and Toxic Substances, and EPA Region 1. Each of the ETV partner organizations also were presented with the Hammer Award, including NSF International, Oak Ridge National Laboratory, Sandia National Laboratory, the Civil Engineering Research Foundation's (CERF) Environmental Technology Evaluation Center (EvTEC), Concurrent Technologies Corporation, Research Triangle Institute (RTI), California EPA, Battelle, and Southern Research Institute (SRI).

July 1998

What's Inside

Pilot Points

Advanced Monitoring Systems

- Released Request for Technology to nearly 500 vendors through various media and direct mailing. Continuing to contact vendors directly to encourage participation in verification testing.
- Drafting generic verification protocols and test plans for air and water monitoring systems.

Air Pollution Control Technology

- A Stakeholder Advisory Committee Meeting was held in RTP, NC on May 20.
- Two new technology categories were selected; Baghouse Filtration Products and Add-on NO_x Control.

Drinking Water Treatment Systems

- Completed verification testing of Calgon Carbon Corp.'s *Rayovax* UV plant for Cryptosporidium inactivation using Cartwright Olsen Associates as the field testing organization (FTO). Currently, drafting verification report and statement.
- Qualified an additional FTO – Environmental Health Laboratories and Associates. There are now seven qualified FTOs.
- Held a Steering Committee and stakeholder group meeting in April at which four test protocols were approved.

Greenhouse Gas Technologies

- Held Oil and Gas Industry Vendor and Operator meeting to prioritize technologies to verify, promote ETV, solicit feedback on specific technologies to test, and enroll stakeholders. The meeting was attended by 12 members of the operator community and 14 members of the vendor community.
- Solicited microelectronics industry participants interested in PFC emission reduction technology, and invited vendors interested in testing leachate evaporation technology to a meeting.

Indoor Air Products

- Conducted a ventilation air filters testing workshop on May 18-19, in RTP, NC. The workshop was intended primarily for laboratories wishing to take part in the testing program. Interest in the workshop was very strong.
- Established a preliminary screening process for identifying laboratories with the capability and interest to participate in the pilot. On June 10, published a CBD announcement for General Ventilation Filter Testing Laboratory Verification. RTI expects testing to begin in September 1998 after completion of quality assurance activities and review.
- Completed a quality manual outlining the quality management system for the Indoor Air Products Pilot.

P2 Coatings and Coating Equipment

- Finalizing a Powder Coatings Test Protocol and a test plan for UV Curable Coatings.
- Approved officially the HVLP Equipment-Generic Testing and Quality Assurance Protocol on June 15. Tests will use EPA-approved TQAPPs for Conventional Air Spray (CAS) Equipment and for the HVLP Spray Equipment.
- Began solicitation in Innovative Coatings and Coating Equipment. Sent direct mailings to potentially interested parties on May 18. Published an announcement in the CBD on May 26. Expect other announcements to be made in industry publications and web sites.

P2, Recycling, & Waste Treatment Technologies

- Completed field sampling of Katec/Aerosolv's aerosol can recycling system.
- Selected two new vendors for participation, including Hydromatix and its computerized ion-exchange regeneration process, and LMT and its high density liquid for use in mineral assays.
- Accepted two vendors who are participants in the Cal/EPA Certification Program - Rayovac and its rechargeable batteries, and TF Purifiner and its Onboard Oil Management System - to participate in the ETV Pilot. Test plans are under development.

Site Characterization & Monitoring Technologies

- Held Developer Conference Call on May 6 for the Decision Support Software (DSS) technology category.
- Selected eight developers representing nine technology packages to participate in the DSS technology demonstration.
- A draft demonstration plan for the DSS technology category was developed and distributed for external review in June.
- Completed six Field Portable X-Ray Fluorescence (FPXRF) Verification Reports.

Environmental Technology Evaluation Center (EvTEC)

- Initiated a project with the Asian Pacific Economic Council (APEC) to promote innovative environmental technologies in the member countries by developing programs to verify technology performance. Currently planning the APEC Environmental Technology Verification Workshop for late August - September.
- Assisting FHWA's Priority Technologies Program (PTP) in evaluating environmental technology. FHWA is currently funding studies of three bioremediation projects which focus on contamination with respect to highway right-of-ways. CERF's objective is to maximize the transfer of information among the participants of the three ongoing national PTP projects and, ultimately, the larger highway community.
- Finalized evaluation plans for IceBan and ENCAPCO's Emulsified Treated Base.

We Get Letters...

"We view the program as an exceptional tool for providing small system operators with the operational and cost data for new technologies that they need to make buying decisions, as well as providing vendors such as ourselves the opportunity to rapidly launch a new product into the market place by associating ourselves with respected organizations such as the EPA and NSF."

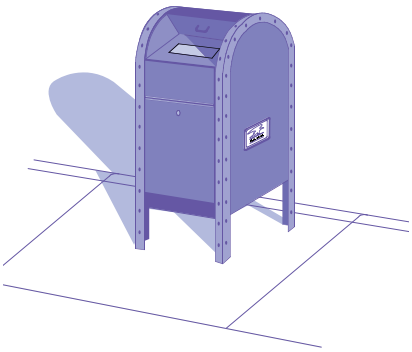
- Calgon Carbon Corporation

"The EPA ETV Program and its issuance of verification reports offers to end-users a valuable tool to use in their evaluation and selection of technology equipment."

- Croll-Reynolds Clean Air Technologies

"Independent evaluation and verification of technologies and uniform data collection are needed for effective technology transfer."

- EPA NATO Workgroup



Web Watch

- ✔ Vendors interested in the Drinking Water Treatment Systems Pilot can electronically submit a Notice of Intent for Application form at www.nsf.org/verification/html/etv_application.html.
- ✔ The meeting summary for the Indoor Air Pilot May 18-19th Ventilation Filters Testing Workshop is posted on the RTI website at http://www.rti.org.
- ✔ Industry Canada's Strategic Website has added nine new international environment market studies which can be used by companies to expand their services worldwide. Visit their website at http://strategic.ic.gc.ca/SSG/ea01301e.html.
- ✔ Check out the ETV web site at http://www.epa.gov/etv for additional information on our three newest Partners!

Good Things Come in Threes! Meet ETV's Latest Additions...

The Wet Weather Flow Technologies Pilot is directed by the Urban Watershed Management Branch of the Water Supply and Water Resources Division of EPA's National Risk Management Research Laboratory (NRMRL). NSF International was selected as the verification organization for this pilot, and a cooperative agreement was signed on May 28, 1998. NSF International is an independent, not-for-profit organization dedicated to public health and safety, and the protection of the environment by developing standards, providing education, and providing third-party conformity assessment services. The pilot kick-off meeting took place on July 14, 1998. Mary Stinson (732-321-6683) is the EPA manager for this pilot, and the NSF pilot manager will be named shortly.

The main intent of this pilot is to verify wet weather flow abatement systems (such as wet weather flow storm inlet devices to control and/or treat stormwater as it enters the sewer system) as well as advanced high-rate treatment technologies (such as micro- and fine-mesh screening to remove constituents such as toxic heavy metals, pesticides, and petroleum hydrocarbons).

The Source Water Protection Technologies Pilot began on May 22, 1998 with a cooperative agreement between the Urban Watershed Management Branch of the Water Supply and Water Resources Division of EPA's NRMRL and NSF International, who was selected as the verification organization (see above). The pilot kick-off meeting took place on July 15, 1998. Anthony Tafuri (732-321-6604) is the EPA manager for this pilot, and the NSF pilot manager will be named shortly.

The goal of this pilot is to verify technologies that help maintain the quality and prevent risks to the source of drinking water supplies. Such risks include microbial pathogens and organics from sewage, stormwater runoff, septic systems and livestock pens, as well as nutrients contained in detergents and fertilizers. Reducing and/or preventing contamination of source waters avoids costly treatment and monitoring requirements. The technology areas of focus will address decentralized wastewater treatment systems, leaking petroleum storage tanks and pipelines, municipal landfills, and hazardous waste sites.

The Pollution Prevention Metal Finishing Technologies Pilot, coordinated by the Multimedia Technology Branch of the Sustainable Technology Division of NRMRL, selected Concurrent Technologies Corporation (CTC) as the verification organization. A cooperative agreement between NRMRL and CTC was signed on June 19, 1998. CTC is an independent, non-profit organization headquartered in Johnstown, PA, that works with government, industry, and academia to perform research, development, and training to solve manufacturing problems and effectively transition innovative technologies to industry. The existing equipment and facilities supporting the National Defense Center for Environmental Excellence, which is operated by CTC for the Department of Defense, will be available to support the activities of the pilot. A kick-off meeting will be held in mid-July, followed by a meeting of a stakeholder group in early September. An active outreach program is already underway to publicize the pilot to potential participants from the metal finishing industry sector. Alva Edwards Daniels (513-569-7693) is the EPA manager for this pilot, and Jim Voytko (813-549-7006) is the CTC pilot manager.

This pilot, in association with the Common Sense Initiative (CSI) Metal Finishing (MF) Sector, will focus on the verification of innovative technologies designed to improve industry performance and achieve cost-effective P2 results. An initial emphasis will be placed on technologies addressing chromium emissions. Priorities for technologies to be verified will be drawn primarily from the CSI National Metal Finishing Environmental Research and Development Plan.

Input from the Oil and Gas Industry

On June 23-24, Southern Research Institute (SRI) held meetings with Oil and Gas Industry representatives and vendors to the industry. On June 23, major Oil and Gas Industry representatives attended the meeting, and on June 24, vendors supplying valves, fittings, and other equipment to the industry met to discuss verification. Both meetings were a resounding success and were a critical step in launching SRI's efforts to verify climate change technologies associated with the Oil and Gas Industry. Industry representatives identified a number of priority technologies to verify, surpassing a key goal of the meeting. Industry representatives also noted that since the reduction of gas emissions is not mandatory, the verification of cost drivers is critical for industry acceptance of new technologies. Most vendors expressed a great deal of interest in ETV. The vendors also identified several barriers to the market that could be reduced through the ETV Program, thus validating the importance of ETV.

12 Technologies Verified

Cone Penetrometers

- ✔ **Fugro Geosciences, Inc.; Houston, TX**
- ✔ **U.S. Navy, Naval Command, Control, and Ocean Surveillance Center, Research, Development, Test and Evaluation Division; San Diego, CA**

Field Portable GC/MSs

- ✔ **Brucker Analytical; Billerica, MA**
- ✔ **Viking Instruments; Chantilly, VA**

Field Portable X-ray Fluorescence Analyzers

- ✔ **Metorex, Inc.; Princeton, NJ (2 technologies)**
- ✔ **Scitec, Inc.; Kennwick, WA**
- ✔ **HNU Systems, Inc.; Newton Highlands, MA**
- ✔ **Niton Corporation; Bedford, MA**
- ✔ **TN Spectrace; Round Rock, TX (2 technologies)**

Emulsified Fuel

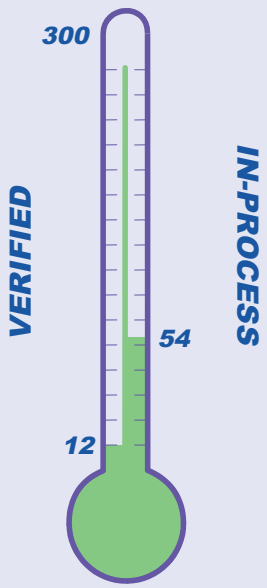
- ✔ **A-55 Limited Partnership; Reno, NV**

ETV Upcoming Events

Date	*Location*	*Event*
July 26-28	Reno, NV	Renox '98 Conference, co-sponsored by A-55 Limited Partnership, a vendor with an ETV-verified product
July 29	RTP, NC	Greenhouse Gas Technologies Pilot Meeting with Landfill Leachate Evaporation Technology Vendors and Regulators
August 3-5	Philadelphia, PA	P2 Through Improved Coatings Presentation at Waste Minimization Conference
August 7	Washington, DC	EvTEC Pilot Advisory Council Meeting
Sept 1-3	RTP, NC	Advanced Monitoring Systems Pilot Presentation at International Symposium on Measurement of Toxic and Related Air Pollutants
Sept 1-4	Seattle, WA	APEC Environmental Technology Verification Workshop
Sept 10-11	Seattle, WA	Advanced Monitoring Systems Pilot: Second Water Stakeholder Meeting
Sept 16-17	Chicago, IL	Advanced Monitoring Systems Pilot: Second Air Stakeholder Meeting
Sept 17	RTP, NC	Air Pollution Control Technology Pilot Stakeholder Advisory Committee Meeting

For more details on ETV Upcoming Events, check out our online calendar at http://www.epa.gov/etv/highup.htm

GOAL: 300 Technologies Verified by 2005



The *ETV Program Quality Management Plan for the Pilot Period (1995-2000)* has been published.

Access it on the ETV web site at:
http://www.epa.gov/etv/library.htm

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